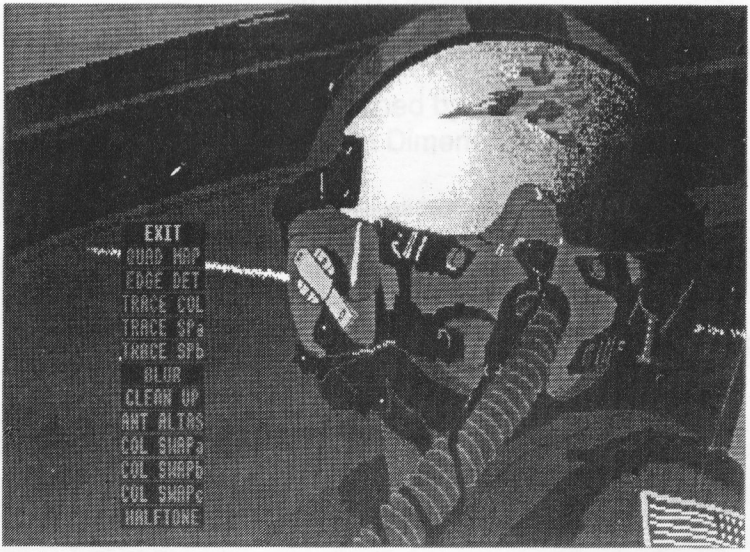
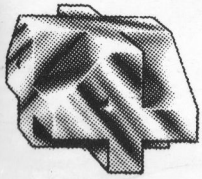
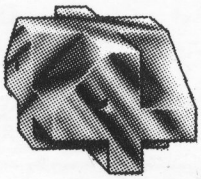
ARCtist



USER GUIDE



The Fourth Dimension



The Fourth Dimension

ARCtist

Version 1.00
Software Engineering by
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Published by
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Loading Instructions

System requirements

ARCtist requires an Archimedes with at least 1MB of RAM and Acorn's RISC OS.

Before ARCtist can be loaded the desktop must be configured to run in a 256 colour mode using the !Configure program supplied with your Archimedes. You must also ensure that there is at least 160K bytes of RAM reserved to the screen. Refer to the user guide for details.

Loading ARCtist

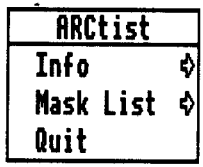
To run ARCtist, insert the disc in drive 0 then click on the icon bars disc icon. A directory viewer will be opened containing the !ARCtist icon. Double click on this icon to load ARCtist. When loaded the ARCtist icon will install itself on the right hand side of the icon bar.

The Desktop

The ARCtist Icon

Once the program has been loaded you will see the ARCtist icon on the right side of the icon bar. Clicking on this icon with Select will activate ARCtist with its main menu visible down the left hand side of the screen. To get back to the desktop from here click with Select on the option titled 'SYSTEM' located at the bottom of the menu. This will bring up a small sub menu with several options, the lowest of which is titled 'RISC OS', clicking on this with Select takes you straight back to the desktop.

Clicking on the ARCtist icon with the Menu button will bring up the following window:



Moving over the 'Info' arrow displays a window showing the current version number of the program.

Moving over the 'Mask List' arrow will display a list of the options presented on the ARCtist main menu. You can toggle each item in this list by clicking on them with Select. Items that are highlighted in this list will then be omitted from the ARCtist main menu and cannot therefore be used. Care should be taken when highlighting the 'SYSTEM' option at the bottom of the list as you will then not be able to get back from ARCtist to the desktop.

Clicking on 'Quit' with Select will remove ARCtist from the icon bar.

The Mouse Controls

Once ARCtist has been activated (by clicking on its icon on the icon bar with select) the mouse controls differ slightly to those used in the desktop, as follows:

SELECT - Works virtually as normal, it is used to select menu options and commence drawing operations. Many of the options on the main menu have sub menus which are displayed by first clicking on the option; (only if that option is not already selected) then clicking on it again, bringing up its sub menu (if there is one).

MENU - Is now used exclusively for choosing colours. Wherever the cursor is at any time; clicking on the Menu button will select the colour under the cursor as the current drawing colour.

ADJUST - Now performs two functions. If you are mid way through using a function, clicking Adjust would take you a step back through the sequence of using it. Take drawing a circle for example, once the circle option is selected; the sequence of events is:

Set center with Select.
Pull out a rubber banded circle to set the size and fix with Select.

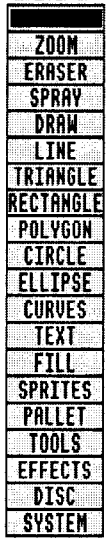
If you had set the center and were then pulling out the rubber banded circle but realise you had set the center in the wrong place, clicking on Adjust would take you back a step in the sequence so that you could re-set the center of the circle.

The second use for Adjust is toggling the main menu on and off so that you can use the full screen for drawing. This only works when you are at the first step in using a function, setting the center of a circle in the above example or when no function is selected. Although this clashes with Adjust's other use it is not generally a problem and at worst means that sometimes you might have to click on Adjust twice to toggle the main menu on or off.

Main Menu

The following diagram shows the ARCtist main menu. At the top is a block of colours, these represent all 254 of the colours available for you to use in ARCtist. Although ARCtist operates in a 256 colour mode two of the available colours are used internally, as you read through this manual you will understand where and why these colours have been used. Any of the 254 free colours can be chosen any time the main menu is displayed by placing the cursor over the colour you want and pressing either Menu or Select.

Directly below this block of colours is a box showing which colour is currently selected. This will change as you select new colours. Note that a colour can be selected from anywhere on the screen so you don't have to fiddle around selecting a colour from the small area just described, you can grab colours from your half drawn picture to be sure you get the right one. Also see the section describing the menu option 'PALLET'.



Below the selected colour box is a column of 19 different options. These are the main guts of the program and are what you will use to draw pictures, handle sprites, cut and paste bits of pictures, access discs and perform special effects etc.

Any of these options can be selected (as long as the menu is visible) by simply clicking on the option you require with Select. Many (but not all) of the options have sub menus or windows allowing you to change the way a function is used, choose fonts, brushes, fill patterns, catalogue discs etc.

How a sub menu is displayed depends on the option selected, you should read each functions relevant section for more details. In most cases where a function has a sub menu it will be displayed by first choosing the option you want and then clicking on it again with Select. In some cases though; where it is not possible for an option to have a default setting, upon selection the option will automatically display its sub menu for you.

The 'SYSTEM' Option

SYSTEM is located at the bottom of the main menu. System itself does not actually perform a task, it simply displays the following submenu:

EXIT is an option to be found in the top left corner of all sub menus. Clicking on it with Select will remove the submenu from the screen.

CLEAR when selected will clear the entire graphics screen to the currently selected colour. Once this option is chosen it will start flashing blue, it is up to you to either confirm your choice by again clicking on it with Select or cancel the operation by clicking on it with Adjust.

PRINT when selected will print out the current screen using Acorn's RISC OS printer drivers. To print a screen, the appropriate printer driver must be loaded into the desktop from the 'Applications disc 1' supplied with your computer.

Consult the User Guide supplied with your computer if you are unsure how to load and use the printer drivers. Once a driver is loaded, you can click on the printer icon with Menu, then on 'Quit' with Select to remove the printer application from the icon bar. This will save memory as the printer driver module is left in memory and is all that ARCtist needs to print a screen.

RISC OS upon selection will take you out of ARCtist and back into the desktop. The screen, user sprite bank and any selected options are stored so that when you return everything is kept exactly the same. Remember that if you remove the SYSTEM option from the main menu (as described in the section titled 'The Desktop') once you activate ARCtist you will not be able to get back to the desktop without resetting the machine and thus losing your picture and any sprites you have defined.

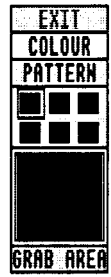
Fill

Default Setting

When the Fill option is first selected it will default to filling an enclosed area of the screen with the currently selected colour. To do this simply select FILL from the main menu (if it is not already selected), ensure that the colour bar is displaying the colour you want to fill with, then move the cursor inside the area you want to fill and press Select.

The Fill sub menu

To display the fill sub menu first ensure that FILL is selected on the main menu, then click on FILL again with Select. This will display the following sub menu:



EXIT removes the sub menu from the screen, this must be done before you can fill an area.

COLOUR is the default fill type setting. When highlighted; all successive fill operations will be done in the solid colour currently selected.

PATTERN selects the fill with a pattern type setting.

Below the pattern option are six square boxes, these show the six fill patterns that can be used to fill an enclosed area. All six default to just empty black boxes but it is possible to draw patterns, grab a section of the screen as a pattern, load patterns or save patterns. The currently selected pattern is highlighted by a square box, this pattern is also shown expanded by four times just below the six pattern boxes.

Fill patterns

Select which one of the six fill patterns is used or edited by moving the cursor onto whichever of the six boxes you wish to use and press Select. The square box used to highlight the current pattern will now move to the one you have selected and (if there is anything in the pattern) you will see an expanded version of it just below.

DRAWING FILL PATTERNS is achieved by simply moving the cursor into the expanded version of the pattern and pressing Select to draw pixels into it in the currently selected colour. Any pixel of any of the six patterns can be in any colour. As you draw into the expanded fill pattern box; changes will also be reflected in the normal size version of the pattern.

Actual filling with a pattern is achieved in exactly the same way as with a solid colour except that the fill sub menu should show the PATTERN option highlighted rather than COLOUR. Don't forget to remove the sub menu by clicking on EXIT before any filling can be done.

GRABBING PART OF THE SCREEN AS A FILL PATTERN is easily achieved by clicking on the GRAB option on the fill sub menu. This will remove the sub menu from the screen and change the cursor from a cross hairs to a small icon identifying that the grab fill is on operation. Then click select over the part of the screen you wish to grab and it will be done. This will continue to operate until you reactivate the fill sub menu where you will be able to see your new grabbed fill pattern.

LOADING AND SAVING FILL PATTERNS is covered in the section detailing the main menus DISC option.

Fill working with other main menu options

Several main menu options (TRIANGLE, RECTANGLE, POLYGON, CIRCLE, ELLIPSE, TEXT) have the option FILL on their sub menus. The way this option works depends on the selection of the COLOUR and PATTERN options on the fill sub menu. If you wish to draw a filled circle for example, having COLOUR selected on the fill sub menu would force the circle to be drawn solid in the currently selected colour. If PATTERN is selected on the fill sub menu then the circle would be drawn filled with the currently selected fill pattern.

Draw

Default Setting

When Draw is first selected it will default to drawing with a medium sized circular shaped brush in the currently selected colour. To draw with any brush just move to where you want to start drawing, press Select and the brush will be drawn, release Select to stop drawing.

The Draw sub menu

To display the draw sub menu first ensure that DRAW is selected on the main menu, then click on DRAW again with Select. The default sub menu will look as follows:

← Remove sub menu.

Make the current brush bigger or smaller.

← The currently selected brush.

The four brushes available.

Options not available at present.

Draw with solid colour or the current fill pattern.

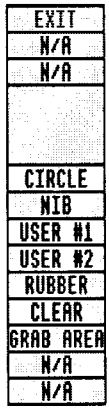
As you can see; there are four brushes, two are defined internally by ARCtist (CIRCLE and NIB) and these can be made bigger or smaller by pressing with Select on either the Bigger or Smaller options. If the circular brush is reduced to being just one dot, when you are actually drawing with it ARCtist will draw a continuous line as you draw rather than a string of dots.

When the Pattern option is selected note that pressing Select will draw in a special colour that is changed into the required pattern when you release Select.

The last two brushes (USER #1 and USER #2) are user definable and default to being blank.

User definable brushes

The two user definable brushes available are User #1 and User #2. These are both identical in use and are selected by clicking on whichever one you want with Select. This will force the Draw sub menu to be redrawn which will now look as follows:



Notice that the BIGGER and SMALLER options are now no longer available along with COLOUR and PATTERN. Also that the previously N/A options are now replaced with RUBBER, CLEAR and GRAB AREA.

DRAWING YOUR OWN BRUSHES is achieved in the same way as drawing fill patterns described earlier. Where the circle was shown on the last diagram is now replaced with a drawing of your own user brush. To draw into the brush simply move the cursor inside the currently selected brush area (see last diagram) and press Select to draw in the currently selected colour.

RUBBER is included on the sub menu to allow you to rub out any mistakes made whilst drawing a brush. Once selected, successive drawing in the selected brush area will not draw with the currently selected colour but with a transparent colour that has the effect of rubbing out.

CLEAR will erase anything in the currently selected brush and set all its pixels transparent.

GRAB AREA is used to grab a part of the screen as the currently selected user brush. To grab part of the screen click on GRAB AREA with Select, the draw sub menu will then disappear and the cursor will be surrounded by a square box. This box represents the portion of the screen to be grabbed, move this over the area you want and press Select. The box will disappear and the brush grabbed, it is instantly available and pressing Select further will draw with the new brush straight away. You can also see the brush by clicking on DRAW on the main menu to recall the sub menu.

Drawing with any function (not just DRAW) will operate more smoothly if the main menu is removed (by clicking Adjust) whilst actually using the function.

Eraser

The Eraser option has no default setting and there are no options associated with it that you can permanently set, so clicking on the Eraser option will instantly display the following sub menu:

EXIT as usual removes the sub menu from the screen.

RUBBER, upon selection the sub menu will disappear and the cross hair cursor will change into a small diamond shape. To use the rubber press Select on the area to be rubbed. Rubbed out bits are changed to the colour selected when the screen was last cleared (the background colour).

UNDO LAST literally undoes the last operation you did since selecting a new option on the main menu. For example, you have partly drawn a picture, you then decide it's rubbish so you scribble all over it with the draw function or worse still, you select to clear the screen and then wish that you had not. Selecting UNDO LAST from the eraser sub menu would undo your scribbling or screen clearing operations and leave it as it was before your rash move.

Please note that the UNDO LAST option cannot undo a load screen operation, TOOLS operations or EFFECTS.

When the MASK TAPE option (found on the SPRAY sub menu and described in the next section) is selected the UNDO LAST option is not available and is shown on the eraser sub menu as N/A.

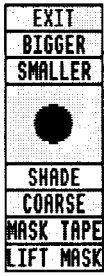
Spray

Default Setting

When Spray is first selected it will default to spraying with a medium sized spray area and ARCtist's special shaded spray option set.

The Spray sub menu

To display the spray sub menu first ensure that SPRAY is selected on the main menu, then click on SPRAY again with Select. The default spray sub menu looks like this:



← Remove sub menu.

Make the spray area bigger or smaller.

← Size of the spray area.

Type of spray gun used.

Masking tape options.

It is possible to make the spray area bigger or smaller in exactly the same way as the circle and nib brushes on the Draw sub menu. As you increase or decrease the size of the spray area the circle in the 'Size of spray area' will reflect its actual size.

There are two different types of spray gun available, these are called SHADE and COARSE. The coarse spray gun works in the same way as spray guns available on other painting systems and simply takes the colour you have currently selected and sprays only this colour onto the screen. The shade spray gun on the other hand takes the colour currently selected plus any shades of it, then by a process of reading from the screen to see what colours are already in the spray area produces a more gradual 'shaded' spray pattern.

Masking tape

The two masking tape options MASK TAPE and LIFT MASK are located at the bottom of the spray sub menu (see previous diagram). These two options allow you to place ARCtist's equivalent to artists masking tape anywhere on your masterpiece as protection against the spray gun.

To place masking tape on the screen prior to spray gun work, click with Select on the MASK TAPE option found on the SPRAY sub menu. As you do so you will notice that the currently selected colour bar splits into two, with your selected colour occupying about three quarters of the right hand side of the box and a small block of a colour not normally available for drawing occupying the left side. This is the special colour that represents the masking tape, see the following diagram:

Masking tape colour →

There is no set way to put masking tape on the screen, instead you select the masking tape colour as the currently selected colour by moving the cursor into the masking tape colour block (shown above) and press Select or Menu, the rest of the colour box should now show the same colour. You are then free to use any of the drawing functions (DRAW, LINE, TRIANGLE, RECTANGLE, POLYGON, CIRCLE, ELLIPSE, CURVES, TEXT and FILL) to place the masking tape colour anywhere on the screen. Do not worry about placing masking tape over parts of a picture you have already drawn as a copy of the whole screen was stored to memory as soon as you selected the MASK TAPE option from the spray sub menu, things will be rectified later.

Once you have placed masking tape wherever you want it, you can then spray anywhere on the screen with any colour and you will notice that you cannot spray on any areas covered with masking tape. DO NOT TRY SPRAYING WITH THE MASKING TAPE COLOUR.

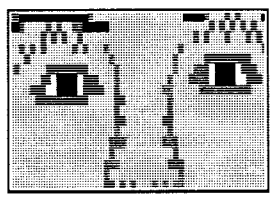
When you have finished spraying and wish to remove the masking tape, recall the spray sub menu (by clicking on SPRAY with Select once or twice) and click on the LIFT MASK option with Select, this will start flashing and you must either confirm or cancel your choice by again clicking on it with either Select or Adjust. Any menus visible will temporarily disappear and the machine will be busy for a few seconds working things out, the masking tape will then be removed from the screen and the missing bits of your picture replaced.

If you make any mistakes while the mask tape option is active just cover the offending area of the screen with masking tape colour then select LIFT MASK, the screen will then be left as it was before you went wrong. Note that when mask tape is active the UNDO option is removed from the eraser sub menu.

Zoom

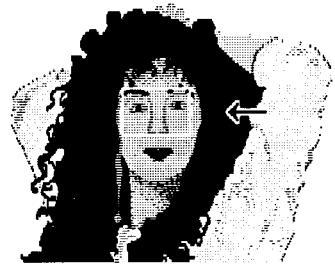
Zoom has no sub menu and upon selection will instantly become active. The zoom window will default to the upper left area of the screen and is initially shown blank.

To select the area to be zoomed, press the Select button and move the cursor to the area you wish to see, you will notice that as you do so there is a rectangular box following the cursor showing which area is zoomed, also that this area will be shown expanded in real time in the zoom window. The following example shows both the zoom window and the box showing which area is zoomed:



↑

Zoom Window



Once you have selected the area to be zoomed, release the Select button and the box showing which area is zoomed will be fixed until you next press Select outside of the zoom window.

You can edit individual pixels within the zoom window by moving the cursor into it and pressing Select to set pixels to the currently selected colour. When the cursor moves into the zoom window it changes from the normal cross hair into a flashing rectangle showing exactly which pixel you are over. As changes are made in the zoom window they will be instantly reflected at normal size on the area of screen being edited.

If you wish to edit the area of screen occupied by the zoom window, press Select (somewhere outside of the zoom window) and drag the zoom area box over the zoom window. As the zoom area box crosses the boundary of the zoom window it will relocate itself on the opposite side of the screen, editing inside the zoom window works in exactly the same way whichever side it is on.

Line

Line is a fairly simple function and has no sub menu. It introduces a technique called 'Rubber Banding' and in this case simply draws a straight line in the currently selected colour between two points.

Drawing the line is achieved by specifying two points, the start and end of the line. The start is set by moving the cursor to where you want the line to start and clicking on Select. If you set it in the wrong place just click on Adjust and you can reset its position.

You will notice that once the start point of the line is set, moving the cursor will drag what is called a rubber banded line from it. The end of the line is set in exactly the same way by moving the cursor to the end of where you want the line and clicking Select again.

Once a line has been drawn you will see that ARCtist takes the end of your line as the start of a second one, ie a rubber banded line will join the cursor and the end of your first line. To cancel this so that you can select a new start point click on Adjust.

Triangle

Default Setting

When Triangle is first selected it will default to drawing only the triangles outline.

The Triangle sub menu

The triangle sub menu introduces a menu that is common to several options on the main menu, these are TRIANGLE, RECTANGLE, POLYGON and ELLIPSE. As such it will only be described in detail here as in other cases it works in an identical manner.

To display the triangle sub menu first ensure that TRIANGLE is selected on the main menu, then click on TRIANGLE again with Select. The default triangle sub menu looks like this:

EXIT will remove the sub menu from the screen.

OUTLINE draws the current shape (triangle) as an outline only.

FILL draws the current shape (triangle) as either filled in with solid colour or filled with the currently selected fill pattern; depending on the setting of the COLOUR and PATTERN options found on the FILL sub menu.

Drawing a Triangle

Drawing a triangle is virtually identical to drawing a line, except that a third point needs to be set to finish the shape. The three points correspond to the three corners of the triangle and it does not matter in which order you specify them. Set the first two points in the same way as for a line, once the second point is set; moving the cursor will pull out a rubber banded triangle, set the third point by clicking Select. If you set any points in the wrong place click on Adjust and it will take you one step backwards in the defining procedure, this is made more clear by actually trying it out.

Rectangle

Default Setting

When initially selected Rectangle will default to drawing only a rectangles outline.

The Rectangle sub menu

The rectangle sub menu looks and works exactly the same as the triangle sub menu. Read the section on 'The Triangle sub menu' for details.

Drawing a Rectangle

To draw a rectangle you need to specify two points, these points have to be opposite corners of the rectangle. For example, the first point might be the upper left corner and the second in the bottom right corner. This is done in the same way as the two points of a line are drawn except that instead of rubber banding a line a rectangle will be rubber banded instead.

It does not matter which corners you specify or in what order as long as they are in opposite corners of the rectangle. If you set a corner in the wrong place, click on Adjust as normal to take you a step backwards through the procedure.

Polygon

Default Setting

Upon initial selection Polygon will default to drawing only a polygons outline.

The Polygon sub menu

The polygon sub menu looks and works in exactly the same way as the triangle sub menu. Read the section on 'The Triangle sub menu' for details.

Drawing a Polygon

Using this option it is possible to draw polygons with from three to twelve sides. To draw a polygon you have to specify two points, the number of sides and an angle.

The first step is to set the center of the polygon, to do this move the cursor to where you want the polygons center to be and click on Select.

Once the center is set you will be able to pull out a rubber banded circle from it, this is used to set the diameter of the polygon. Pull the circle out to the required size then click on Select.

You must next set the number of sides you wish your polygon to have, this is incredibly difficult to explain and is best understood by trying it out. Once the size of the polygon is set a rubber banded line will join the polygons center and the cursor, there will also be a rubber banded polygon of the correct size but probably not the correct number of sides. By moving the cursor around the center of the polygon you can change the number of sides in the polygon shown, when it shows the number of sides you require click Select.

The rubber banded polygon should now have the correct size and number of sides. The final thing to set is its angle of tilt, this is done by moving the cursor around the center of the polygon to 'spin' it around, when its at the correct angle click Select and the final polygon will be drawn in place.

If you make a mistake at any point in this procedure, click on Adjust to go backwards through the sequence.

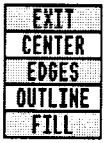
Circle

Default Setting

On initial selection Circle will default to drawing only the circles outline, it also defaults to defining circles by the CENTER method.

The Circle sub menu

To display the circle sub menu first ensure that CIRCLE is selected on the main menu, then click on CIRCLE again with Select. The default circle sub menu looks like this:



← Remove sub menu

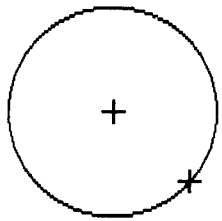
Circle definition type

As explained for the Triangle sub menu

Circle definition types

There are two different ways you can define the position and size of a circle from within ARCtist, these are called CENTER and EDGES.

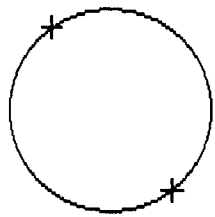
CENTER is the standard way to define circles found in virtually all other painting packages. Circles are defined using this method by firstly clicking on Select where you want the center of the circle to be. If you set the center in the wrong place click on Adjust to take you a step back through the defining procedure. There will be a rubber banded cross marking the circles center and a circle that you can pull out from the center to set its size, when at the required size; click on Select and the circle will be drawn in the current colour or fill pattern.



EDGES is the second and more flexible method available for defining circles. The center method for circle definition becomes a little awkward if you wanted a circle whose edge is exactly aligned with other shapes. It would be incredibly difficult to draw a circle whose circumference exactly touched the three corners of a triangle.

To define a circle using the edges function you must again define two points. This time however, the points are not the center and diameter but two points on the circumference on exactly opposite sides of the circle.

First move the cursor to one position where you wish the circles circumference to lie and click Select. If you positioned it in the wrong place click Adjust and start again. You will then be able to pull out a rubber banded circle whose size and center position you can move at the same time, in doing this you can position the circumference to fall upon any points you wish. When in the correct position click on Select and the circle will be drawn in the current colour or fill pattern.



Ellipse

Default Setting

Upon initial selection Ellipse will default to drawing only the ellipses outline.

The Ellipse sub menu

The ellipse sub menu is identical to the triangle sub menu in both appearance and operation. You should refer to the section 'The Triangle sub menu' for a detailed description of using this sub menu.

Drawing an Ellipse

To draw an ellipse you need to set two points and an angle. The first point to set is the center of the ellipse, this is done in the same way as for polygons and circles (in center mode). Move the cursor to where you want your ellipses center to be and click on Select. If you set it in the wrong place click on Adjust and start again.

Once the center point is set you can pull out a rubber banded ellipse whose both height and width can be adjusted by moving the cursor around. When at the desired height and width click on Adjust. If you set either the height or width incorrectly; click on Adjust then set them in the correct place.

When you have set the center and size of your ellipse you can then adjust its angle. This is done by moving the cursor around the center of the ellipse to 'spin' it around. Once at the angle you desire click on Select and the ellipse will be drawn in the current colour or fill pattern.

When setting the angle of the ellipse you will notice a cross occasionally appear at the ellipses center, this shows when its angle is set at zero degrees (it is exactly level).

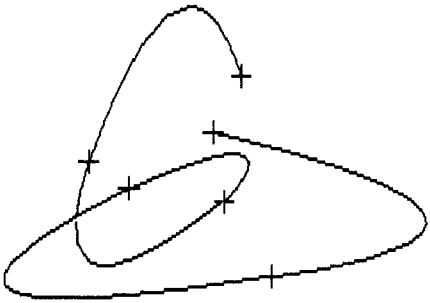
Curves

This function has no sub menu. 'Curves' is used to draw a smooth curve between two points. To do this you must set two points and a 'how curved is the curve' factor.

The first two points to set correspond to the start and end points of the curve and work in exactly the same way as drawing a straight line between two points. Move the cursor to where you want the curve to start and click Select. You then pull out a rubber banded line to where you want the end of the curve to be and click on Select again.

Once the start and end points are fixed the rubber banded line will be replaced by a rubber banded curve. You can bend the curve around by moving the cursor around the end point of the curve. When the curve follows the path you want click on Select to draw it in the currently selected colour.

Complex curves can be generated by connecting the end of one curve to the start of another. In the following diagram crosses are used to show the start and end of individual curves:



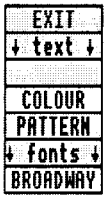
Text

Default Setting

When Text is first selected it will default to printing with the first available font (usually Broadway) with solid colour.

The Text sub menu

The text sub menu is displayed by either ensuring that TEXT is selected on the main menu, then clicking on TEXT again with select, or, it is shown automatically when TEXT is selected from the main menu and you have not already entered some text to be printed. Either way, upon selection the default sub menu will look something like this (except that here only one of the available fonts is shown):



← Remove sub menu.

← Text input box.

Draw with solid colour or the current fill pattern.

The fonts available.

Entering Text

Text is entered into the 'Text input box' shown on the above diagram. To do this you must first click on either it or the option 'text' above it with Select. This will enable the text input mode which is signalled by a flashing text cursor becoming visible. You can now enter text from the keyboard as normal, once the input box has been filled you can continue typing when text will be scrolled off to the left, although not visible; the text is still there.

Finish off the text by either pressing 'RETURN' or clicking on Select.

Fonts

Although only one is shown on the above diagram there will be several fonts available at the bottom of the sub menu.

The font currently selected is shown highlighted in blue. You can select a different one by clicking on Select over the desired font.

Getting text on the screen

Once you have typed your text into the text input box and selected which font you require; you can then proceed to put the text on the screen. This is done by first clicking on EXIT with Select to remove the sub menu, then surrounding the area you wish the text to occupy. TEXT does this in exactly the same way as you define a rectangle using the RECTANGLE function. First click Select at one corner, then pull the rubber banded rectangle out to the opposite corner and click on Select again.

ARCtist will then proceed to scale each character and paint it so that your text exactly fits within the box you defined. The text will be either painted in the currently selected colour or fill pattern depending on the setting of the COLOUR and PATTERN options on the text sub menu.

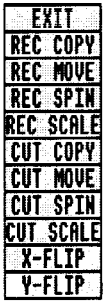
The following is an example of how ARCtist exactly scales the words 'THE 4th DIMENSION' to fit a required box:

Note that the fonts used in ARCtist are not defined in the standard Acorn way and as such do not use any of the system font workspace or continually need to access discs to be drawn. Characters can be drawn at any size or number of different sizes without worrying about running out of memory in the font cache.

Tools

The Tools sub menu

Tools is not itself a useable function. Instead it gives you access to its sub menu which contains the actual tools you can use. As such there is no default setting for this option and upon initial selection it will automatically display its sub menu which will look as follows:



Once an option is selected from the sub menu it will be highlighted in blue. From this point on clicking TOOLS on the main menu will no longer automatically display its sub menu and whichever tool was selected from the sub menu will be in operation.

To then display the sub menu ensure that TOOLS is selected on the main menu and then click on TOOLS again with Select.

'REC' and 'CUT'

Notice that on the tools sub menu there are two sets of the same functions (except for X-FLIP and Y-FLIP), the first set prefixed with 'REC' and the second with 'CUT'. Here the REC is short for RECtangle and CUT is short for CUTout. If we wish to copy an area of the screen to another area of the screen there are two different ways of doing so:

RECtangle COPY could be used to surround the area to be copied with a rectangle and then place a copy of everything enclosed within the rectangle anywhere on the screen. This is the quickest and easiest method available for copying a section of the screen but in most cases will not be accurate enough as few shapes you will want to copy are likely to be exactly rectangular.

CUTout COPY is used when you want to exactly cut around the edge of an irregular shape on the screen. Everything within a boundary that you draw around the shape will be copied to wherever you want. This is by far a more accurate method for selecting a chunk of the screen compared to RECtangle but usually takes longer to accurately cut around the area you require.

REC COPY

This is used to copy a rectangular area of the screen somewhere else on the screen. When selected the word 'FROM' appears below the cross hair cursor. This means that ARCtist is expecting you to select the area of the screen you want to copy. This is done by first clicking on Select in one corner of the area you want to copy then pulling out the rubber banded rectangle to the opposite corner and again clicking on Select.

Once the area to be copied is selected the 'FROM' changes to 'TO' and a rubber banded box of the same size as the one just selected is fixed to the cursor. At this point ARCtist is expecting you to position this box where you want the copy to be and then click Select. You can place as many copies as you like wherever you want them to be. Clicking on Adjust will take you back to the 'FROM' selection so that you can copy a different area.

REC MOVE

Moving an area works exactly the same as copying one, both in selection of the area to be moved and positioning where you want it to be moved to. The only difference is that when you click Select to actually move the area, the source area (where it came from) will be filled with the background colour.

REC SPIN

RECtangle SPIN takes a selected area of the screen and produces a copy of it rotated to any angle. Selection of the area to be spun and positioning of the destination area (where it's going to) works identically to that used in 'REC COPY'.

Once you have selected an area and fixed where it will be copied, the rubber banded rectangle can be rotated to any angle by moving the cursor around its center. When the rectangle is at the angle you require, click on Select and ARCtist will then proceed to rotate the whole image into place.

REC SCALE

This function is used to change the scale of any area of the screen. You can change aspect ratio, expand or compress both vertically and horizontally.

The area you wish to work on is selected in the same way as for rec copy, rec move and rec spin. When the cursor shows the word 'TO' signifying that you should select the destination area, however, you have to position a further two points instead of the usual one. These correspond to opposite corners of the rectangle that you wish the original area to be scaled into.

The following diagrams show examples of rec copy, rec move, rec spin and rec scale in operation:

The original

A section copied

The original

A section moved

The original

A section rotated

The original

Various scaled copies

CUT COPY

Cut copy's task is basically the same as that of rec copy. It takes a section of the screen selected by you and produces copies of it wherever you want them. The difference between this and rec copy is in the way that the area to be copied is defined. Instead of copying a rectangular area, using cut copy you can copy intricate shapes from part of the screen without affecting pixels outside of the actual shape that would lie within the boundary of a rectangle.

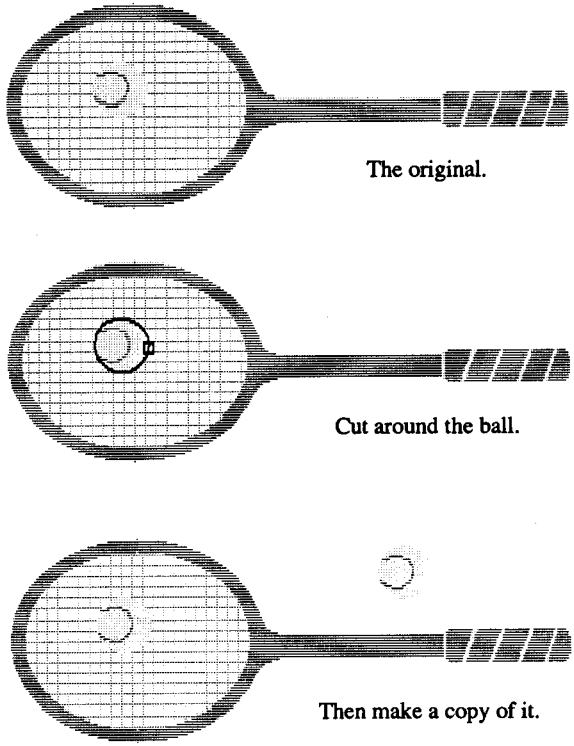
Upon selection the word 'FROM' will again appear below the cursor. This time however, ARCtist expects you to draw around the shape you want to copy with joined lines. The distance between these lines does not matter, it can be just a few pixels or the size of the screen. To cut accurately around a curve use plenty of short lines.

The lines are started by clicking Select somewhere along the outline of the shape you wish to cut. A small blue box will appear and be fixed at this point. This is a special little box as it signifies the start of your cut out shape and will also (when you have cut right around the shape) be the end point of it. Clicking Select with the cursor anywhere within it will draw a line between the last plotted point and the start of the cut out, this also signifies to ARCtist that you have finished cutting and will proceed to request where you want the copy placing.

Lines are automatically rubber banded between points (set a point by clicking on Select) and the end of one is automatically the start of another.

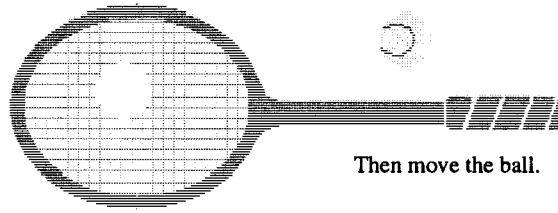
Once you have finished cutting your shape out (signified by clicking Select in the little blue box) a copy of the outline you have cut out will be shown at the cursor position. Move this outline to where you want the copy to be and click on Select.

The following diagram shows three stages using cut copy:



CUT MOVE

Similarities between rec copy and rec move apply identically to cut copy and cut move. Cut a shape out in the same way as for cut copy, (read the section on 'CUT COPY' if you are unsure) also position it in the same way. The difference between cut copy and cut move is that when the shape is moved, its source area (where it came from) will be filled in the current background colour. Working on the example diagrams used to demonstrate cut copy, the final diagram for cut move would appear as follows:



Then move the ball.

CUT SPIN

Cut spin, as rec spin; is used to rotate a section of the screen. The area to be rotated is cut out in the same way as for cut copy and the position of the rotated copy is also selected in the same way. Final rotation of the shape works in the same way as you would rotate using rec spin, except that instead of showing a rubber banded rectangle that you can spin around, you are shown a rubber banded outline of your cut out shape. Again, once the shape is shown at the desired angle click on Select and ARCtist will rotate the whole image into place.

CUT SCALE

Cut scale performs the same task as rec scale except that the area to be scaled is cut out in the same way as an area to be copied using cut copy. When you position where you wish the scaled copy to be however, one restriction now applies that doesn't for rec scale. This is the order in which the two points used to set the size and scale of the image are entered. The top left corner of the scaled copy must be positioned first, followed by the bottom right. If you position the first point and then try to move the cursor either above or to the left of it the shapes rubber banded outline will not be visible.

X-FLIP and Y-FLIP

X-FLIP and Y-FLIP are both used in the same way and are therefore described together. They are used to invert or 'flip' an area of the screen, one vertically, the other horizontally.

Unlike other functions on the TOOLS sub menu, these do not produce a flipped copy of the original area but flip the original or 'source' area selected. The area to be flipped is always a rectangle and is selected in the usual way by clicking Select on opposite corners of a rubber banded rectangle. As soon as you have selected the area ARCtist will flip it. See the following examples:

The original.

Y-FLIP.

X-FLIP.

Pallet

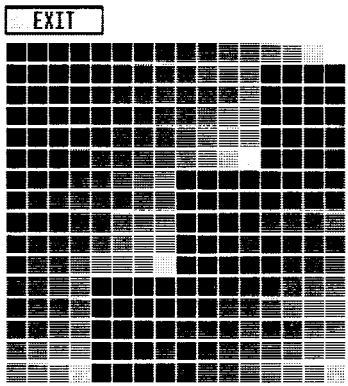
Pallet does not perform a physical function on your picture but is simply used as another method for choosing colours. Upon selection a large box will appear with all 254 available drawing colours clearly visible. This differs from the normal colour selection box located at the top of the main menu in two ways.

Firstly, ARCtist arranges the colours in a more logical fashion, attempting to group similar colours and shades (or tints) together.

Secondly, the currently selected colour is shown highlighted by a flashing box. This is so that you can see exactly which tint of a colour is selected.

You can select any colour shown by moving the cursor over the one you want, then clicking either Menu or Select.

The colour block is removed from the screen by clicking on the EXIT option (at the top left of the colour block) with Select:



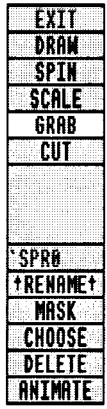
Sprites

Default Setting

When 'Sprites' is first selected it will default to grabbing a rectangular area of the screen and calling it `SPR0.

The Sprites sub menu

To display the sprites sub menu, first ensure that SPRITES is selected on the main menu, then click on SPRITES again with Select. The default sub menu will look as follows:



← Remove sub menu.

Functions to draw a sprite onto the screen.

Functions to grab a sprite from the screen.

← A pictorial of the currently selected sprite.

← The currently selected sprites name.

Sprite utilities.

← Display the sprite animator.

Info on ARCtist sprites

ARCtist sprites and sprite files are to all intents and purposes identical to Acorn sprites. They can be loaded and saved to and from other packages in the same way as other sprites.

Up to thirty sprites can be handled by ARCtist at any time. The size and number of these sprites used depends upon the memory allocation for the ARCtist sprite area. This can be altered by editing the ARCtist !RUN file and changing its first line which normally reads:

WimpSlot -min 640K -max 4096K

As long as you don't set the min value to lower than 640K you can reserve as much or little as you want. Anything over 560K is reserved to the ARCtist user sprite area.

Grabbing sprites from the screen

There are two options on the sprites sub menu used to grab part of the screen as a sprite, these are GRAB and CUT.

GRAB will grab a rectangular area of the screen and is used in the same way that you would select an area of the screen to be copied using functions such as REC COPY on the TOOLS sub menu. The sprite will be grabbed with no mask as the currently selected sprite name.

CUT grabs a section of the screen outlined in the same way that any of the CUT options on the TOOLS menu would be used. It will be grabbed together with a mask (defining the shapes outline) as the currently selected sprite name.

ARCtist will generate an error if there is not enough memory in the user sprite area to grab the sprite.

Drawing a sprite onto the screen

There are several ways that a sprite can be drawn on the screen.

DRAW puts a copy of the currently selected sprite at full size without rotation. A rubber banded rectangle showing the size of the sprite will be shown. Position this wherever you want and click on Select to draw a copy of the sprite on screen.

SPIN will put a rotated copy of the currently selected sprite on screen. Position the rubber banded rectangle as described before, click Select and you will be able to spin the rubber banded box around to any desired angle. Then click on Select again and ARCtist will rotate the whole sprite into place.

SCALE puts a copy of the currently selected sprite scaled to any size on the screen. Click Select at one corner where you wish the scaled sprite to appear, then pull out the rubber banded rectangle to where you want the opposite corner to be and again click on Select.

Sprite utilitys

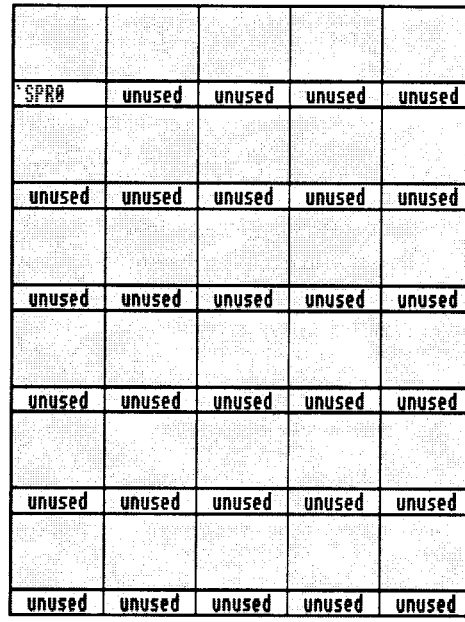
Looking at the sprite sub menu you can see that the sprite utilities RENAME, MASK, CHOOSE and DELETE are available.

RENAME is used to change the name of the currently selected sprite.

This is done by clicking on RENAME, the old sprite name will disappear and a flashing text cursor will appear. You can now type in your new name for the sprite and finish it off by pressing RETURN or clicking Select. If the name you entered already exists as a sprite; its old name will be returned.

MASK generates a mask for the current sprite, any pixels of the currently selected colour will be automatically set in the sprite masks definition. Thus you could grab a sprite, select the background colour as the currently selected colour, then click on MASK so that any background coloured pixels within the sprite appear as transparent.

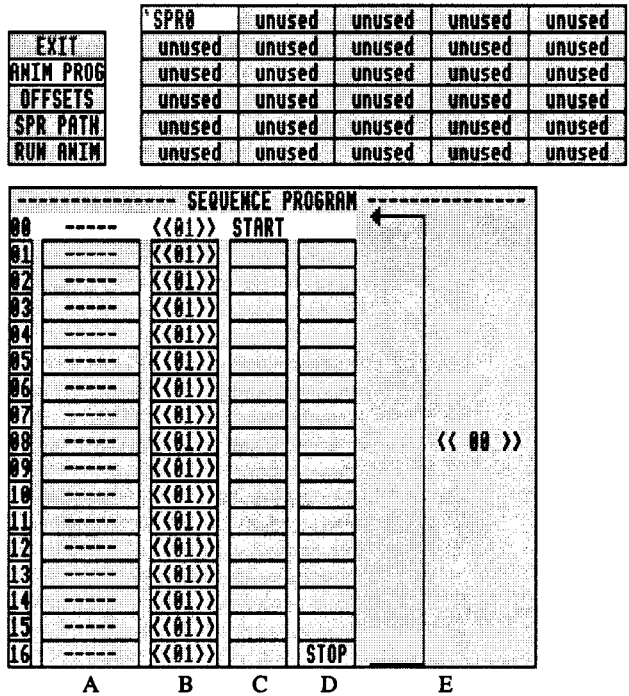
CHOOSE will display a window showing a pictorial of all 30 internal user sprites and their names. Any of the 30 boxes can be selected as the current sprite by moving the cursor into it and clicking on Select. When a previously unused box is selected a new name for it will be automatically generated. You are free to change the name automatically given to a sprite using the RENAME option. The default CHOOSE window looks as follows:



DELETE will remove the currently selected sprite from the sprite list. Click on it with Select and then again with either Select or Adjust to either confirm or cancel your selection. When deleted; the box that the sprite occupied will be displayed as 'unused' in the CHOOSE window.

Animation

ARCtist has a built in animation editor which allows you to build up simple sprite animations. The animation editor is enabled by clicking on the ANIMATE option located at the bottom of the SPRITE sub menu. By default the following sub menu and windows will be displayed:



The window at the top right of the screen shows the contents of each of the 30 sprite boxes, there was not enough room on the screen to also fit the small pictorials that accompany each sprites name on the CHOOSE option (found on the SPRITES sub menu).

At the top right of the screen is a small sub menu with the following options:
EXIT, clicking on this removes the animation editor from the screen.
ANIM PROG, this displays a window (shown above) showing the sprite animation sequence, start and stop points, loops and display times.

OFFSETS displays a window where you can see and change the X and Y offset points for any sprite. This is used to set a common reference point for a set of animated sprites so that they don't jerk around as the next frame in a sequence is displayed.
SPR PATH shows a window showing the current flight path that the animated sprites will follow. You can create a new flight path, delete the old one or delete individual points within the flight path.
RUN ANIM displays the current animation as it stands, running through the whole animation program taking offsets and the flight path into consideration.

The Animation Sequence

The animation sequence editor is shown in the last diagram. This is the heart of your animation as it controls what sprites are seen, in what order and for how long. The editor consists of five main columns of information, labelled A to E on the diagram. The very first column (not labelled) just shows the step number and is not actually used.

In the diagram, the first row is shown highlighted, this shows that if a sprite is selected (from the box of 30 at top right of screen) it will be dropped into this position. Click with select anywhere down column A and the highlight bar will move to whichever row the cursor is over. This will allow you to put any of the 30 sprites in any of the 17 animation steps by simply selecting the step you want (just described) and clicking on the name of the sprite you want, (at top right of screen) the sprite will then appear in place of the '-----' in column A.

Row B shows a number for each sequence step that corresponds to the amount of time that the sprite in each position will be displayed for. This can be increased by pressing on the '>>' just to the right of the number or decreased by pressing on '<<' to the left.

Row C shows where ARCtist will start the animation from when you click on RUN ANIM. The START point must be before the stop point and if you try to defy this ARCtist will drag the STOP point down with START.

Row D shows where ARCtist will stop the animation. This must be after the START point and ARCtist will drag START up with STOP if you try to defy it.

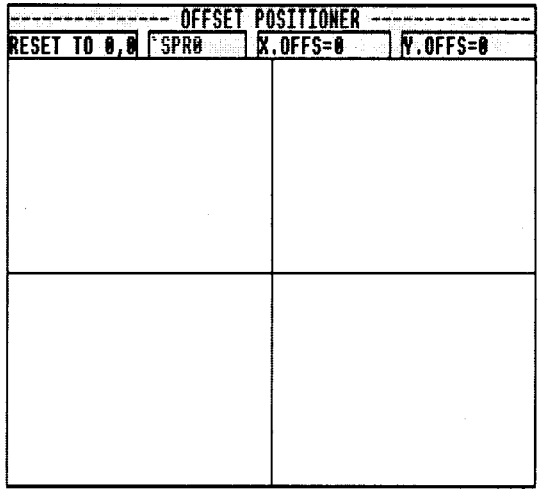
The final row C shows the loop controller. The loop is shown as an upward facing arrow. Whenever ARCtist gets to the sequence step where the tail of the arrow is shown it will loop back up to the sequence step pointed to by the head of the arrow. The number of times this will actually loop around is shown by the number shown to the right of the loop arrow and can be increased or decreased by pressing Select on the '>>' or '<<' either side of the number.

You can move both ends of the loop control arrow by clicking Select somewhere between the end of column D and the number to the right of the loop control arrow showing the number of times to loop. Clicking anywhere above the number will move the head of the arrow to that position and anywhere below it will move the tail of the arrow.

If the tail of the loop control arrow is shown below the position of the STOP marker (column D) then ARCtist will stop the animation before it gets as far as the loop which will therefore not occur.

Sprite Offsets

The sprite offset window is displayed by clicking Select on the OFFSETS option shown on the animation sub menu (top left of the three windows) and by default will look as follows:



Sprite offsets have to be set to overcome problems that can arise from using different sized sprites or bad positioning of actual graphics within a sprite. The idea behind setting offsets is to have a common origin throughout a set of sprites to be animated, so that when they are animated the change from one sprite being displayed to another does not produce an apparent jerky movement.

Looking at the diagram showing the offset positioner you can see that it is mainly occupied by a large blank box with a cross in the middle. The center of the cross represents where a sprites origin is currently situated. This is where you will be setting the common point for all your sprites. The current X and Y offsets are shown at the top right of the box and the currently selected sprites name just to the left.

Select a sprite whose offset you wish to set from the 30 shown in the window at the top right of the screen. A slightly reduced image of it will be displayed in the offset positioner window at its current offset. To reposition its offset simply move the cursor to where you want the offset center to be, click on Select and the sprite will be repositioned showing you where the new origin is.

If you continually click on Select and your sprite gets moved outside of the offset positioner window never to be found again, click with Select on the RESET TO 0,0 option at the top left of the offset positioner window and the sprite will be made visible again.

Flight Path

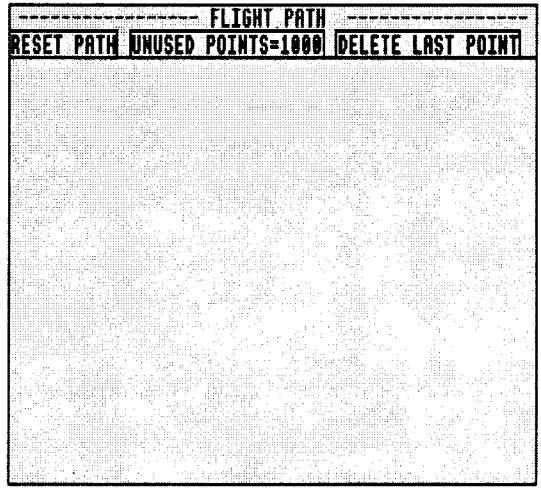
A flight path is a line (or in this case a string of dots) along which the sprites will move as they are animated. In most cases you will probably only want to plot one dot for this so that the animation will be kept still for close inspection.

The flight path editor is activated by clicking on the SPR PATH option on the animation sub menu.

Up to 1000 points can be entered into the flight path, this is done by moving the cursor around inside the flight path window whilst Select is pressed. This will draw a string of dots, along which the sprites will eventually move. As you do so you will notice that the number of dots used indicator counts down. When this reaches zero all dots have been used up and no more can be plotted, You will very rarely use this many though. Points can be individually deleted by pressing on DELETE LAST POINT, or you can delete the whole path by

clicking Select on the RESET PATH option.

The default flight path generator window looks as follows:



The most recently positioned dot in a flight path sequence is highlighted by a small green box.

If, when running through an animation ARCtist finds that not enough points were plotted for the number of frames in the animation, it will continue to use the last plotted point. That way if you want the whole sequence to be shown stationary you don't have to plot a new point for every frame in the animation, just one will suffice.

Running the animation

You can view your animation at any time by clicking Select on the RUN ANIM option (found at the bottom of the animation sub menu). The animation will be run within its own window and can be halted at any time by clicking Select or Adjust.

It would have required a large amount of memory to have double buffered the screen to make the resulting animation appear smoother, ARCtist is already a

fairly large program and it did not seem worth adding an extra 160K to its length just to make the operation of one function appear smoother. As a result of this, when large sprites are animated they will sometimes appear a little jerky, as flicking from displaying one sprite to another takes several video frames to accomplish.

Extra notes and guidelines

ARCtist's animation editor was not included to produce a final, video recordable animation, but simply as a means of simply and quickly previewing short animations of small to medium sized sprites. It can handle large sprites but at a slower rate.

It is not possible for the animation editor to incorporate any background graphics over which the sprites can be animated.

There is no facility for saving sprite offsets, so if you want them, better write them down.

Offsets defined for sprite animation are also taken into account when using the TRACE SPa and TRACE SPb functions found on the EFFECTS sub menu.

When you click EXIT on the animation sub menu; your animation sequence, sprite offsets and flight path are stored internally and will all be reinitialised when you next click on ANIMATION from the SPRITES sub menu.

Effects

The Effects sub menu

Effects is not itself a useable function. Instead it gives you access to its sub menu which contains the actual effects you can use. As such there is no default setting for this option and upon initial selection it will automatically display the following sub menu:

Once an option is selected from the sub menu it will be highlighted in blue. From this point on, clicking EFFECTS on the main menu will no longer automatically display its sub menu and whichever effect was selected from the sub menu will be in operation.

To then display the sub menu ensure that EFFECTS is selected on the main menu and then click on EFFECTS again with Select.

QUAD MAP

It is possible to create many different effects using just this one function. It's basically a glorified copy part of the screen function. The area to be copied is selected by clicking Select in opposite corners of a rectangle that surrounds the area you require.

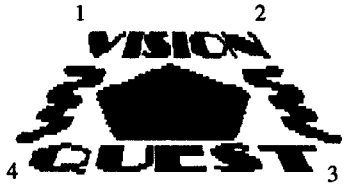
The power of the QUAD MAP function lies in the way that the area selecting where the copy will be put is defined. Instead of just positioning a rubber banded rectangle you have to fix four points of any shaped quadrilateral you wish the original area to fit into.

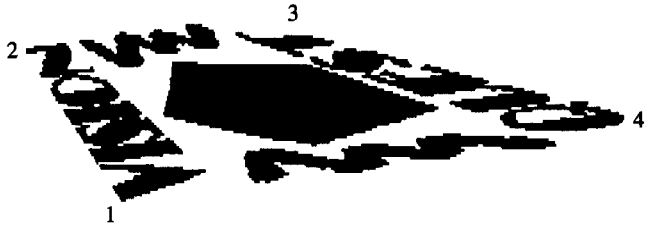
The sequence in which these four points are positioned also has a marked effect. To copy the original area the correct way up and not twisted the points should be ordered as follows:

Top left	Point 1
Top right	Point 2
Bottom right	Point 3
Bottom left	Point 4

The various effects are not easily explained so the following diagrams show a few examples. By far the best way to understand how this function operates is to experiment with it:

The original.





EDGE DET

EDGE DETect as its name implies, is used to highlight edges detected within a rectangular area. The area is selected in the normal way (you should be just about used to this by now) and edges found will show up in the currently selected colour. Anything other than edges will be changed to the current background colour.

TRACE COL

TRACE COLour is used to draw an outline in the currently selected colour around any shape. Upon selection the cursor will change into a left hand facing arrow. To trace an object, move this arrow just right of the object you want to trace. Click Select and ARCtist will search to the left of the arrow until it finds the edge of a shape, it will then trace around this shape with the current colour. The colour you want to trace with must be different to the colour of the shape you want to trace or ARCtist will go mardy and refuse to do it.

TRACE SPa

TRACE SPrite_a is used in exactly the same way as trace col, except that instead of tracing with the current colour, ARCtist will plot a copy of the currently selected sprite at every pixel it traces around the shape. The sprites offset (see OFFSET option on the ANIMATE sprite sub menu) is taken into account when tracing and can be used to either center or offset the position of the traced sprite.

TRACE SPb

TRACE SPrite_b is identical to TRACE SPa except that instead of plotting the current sprite at every traced pixel it will be plotted at regularly spaced intervals. The interval spacing is determined by a small slider control to be found just beneath the 'TRACE SPb' option on the effects sub menu. You will find that you can move this slider sideways by pressing Select whilst the cursor is inside the TRACE SPb option box. The further to the right side of the sub menu the slider is, the larger the distance between plotted sprites.

BLUR

BLUR, quite simply makes shapes within a rectangular area selected in the usual way appear blurred. It does this by plotting pixels of a dark tint around any shapes it finds within the area. If ARCtist cannot find a darker tint of any colour found the blur function will fail to operate correctly.

CLEAN UP

This option again requires the selection of a rectangular area in the usual way. Once operating it has the effect of 'un spraying' an area. It searches for pixels not connected to a major area of colour and deletes them. It makes the selected area look less randomly dotted. Try it out on an area lightly sprayed with the spray gun for a clearer idea of what it does.

ANT ALIAS

ANTi ALIAS is used to reduce the 'stepped' effect seen on computer generated pictures due to lack of high enough resolution. It takes a rectangular area selected as normal and works in a similar way to the BLUR function but in a more selective manner.

COL SWAP a,b and c

COLour SWAP a,b and c are used to change occurrences of one colour into another within a user selected rectangular area. Upon selection the currently selected colour box splits into two:

Colour A is selected by clicking Select either on a colour shown in the colour selection box (at the top of the main menu) or on the colour B shown in the currently selected colour box. Colour B is selected as normal by clicking Menu on the colour you want.

COL SWAPa swaps occurrences of colour A and all of its tints to the actual colour B selected.

COL SWAPb swaps occurrences of colour A of only the tint selected to the actual colour B selected.

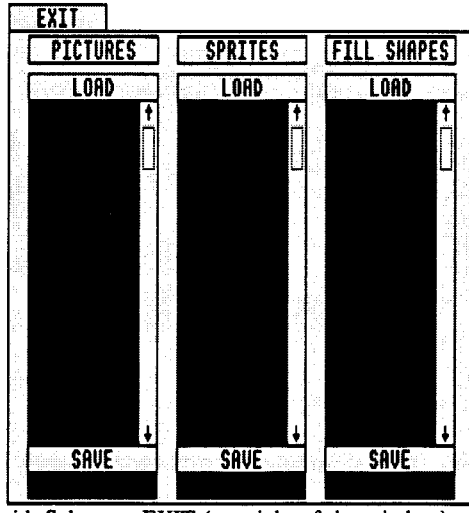
COL SWAPc swaps occurrences of colour A and all of its tints to the colour B selected and all of its tints.

HALFTONE

HALFTONE works identically to COL SWAPc except that it only swaps alternate pixels, resulting in a shaded or 'halftoned' effect.

Disc

This option is used for loading and saving screens, sprite files and fill pattern files to and from disc. Upon selection the following window will be displayed by default:



Clicking with Select on EXIT (top right of the window) will remove the disc window from the screen.

The disc window consists of three main columns, these are headed PICTURES, SPRITES and FILL PATTERNS. Each column has a load area, a save area and a slider at the side of the load area window that allows you to look at any section of the files in that columns directory.

Each column corresponds to a directory stored on a disc in drive 0. These are named FPATTERNS containing fill patterns, PICTURES containing any saved screens and SPRITES containing sprite files. These must be located in the main (root) directory on the disc.

You can easily generate your own picture discs using a utility called '!DiscMaker' on your original ARCtist disc. Double click on !DiscMaker with select, then insert a blank disc in drive :0 (the disc can be unformatted or formatted), press 'Y' and the program configures the disc for ARCtist's files.

Loading Pictures

Looking at the PICTURES column in the last diagram you will see that there is a tall black area directly below the word LOAD. Any screen or picture files will have their names displayed here. If there are too many files to be displayed in this area you can scroll the viewed files up or down using the scroll bar just to the right in a similar fashion to the windows on the desktop.

To load any of the files into ARCtist move the cursor over the name of the file you wish to load and click on Select. The file will then be automatically loaded.

Saving Pictures

The currently displayed screen can be easily saved by clicking Select on the SAVE option located at the bottom of the disc windows PICTURES column. Upon doing so a text cursor will appear in the box below the word SAVE, you are free to type in any filename here, press RETURN to finish off and ARCtist will save the screen to its PICTURES directory. Once saved the new files name will be shown in the load file window.

Loading Sprites

Looking at the SPRITES column in the last diagram you will see that there is a tall black area directly below the word LOAD. Any sprite files in ARCtist's SPRITES directory will have their names displayed here. If there are too many files to be displayed in this area you can scroll the viewed files up or down using the scroll bar just to the right in a similar way to the windows on the desktop.

To load any of the sprite files into ARCtist, move the cursor over the name of the file you wish to load and click on Select. ARCtist will then load the file into memory. Note that loading a sprite file will overwrite all of the sprites currently held in memory. The sprites can be viewed by clicking on the CHOOSE option found on the SPRITES sub menu

Saving Sprites

The set of sprites currently in memory can be saved by clicking Select on the SAVE option located at the bottom of the disc windows SPRITES column. Upon doing so a text cursor will appear in the box below the word SAVE, you are free to type in any filename here. Press RETURN to finish off and ARCtist will save the sprites in memory to a file of the name just entered.

Loading Fill Patterns

Looking at the FILL SHAPES column in the last diagram you will see that there is a tall black area directly below the word LOAD. Any fill pattern files in ARCtist's FPATTERNS directory will have their names displayed here. If there are too many files to be displayed in this area you can scroll the viewed files up or down using the scroll bar just to the right in a similar fashion to the windows on the desktop.

To load a set of fill patterns into ARCtist, move the cursor over the name of the file you wish to load and click on Select. The file containing six fill patterns will then be loaded. Once loaded the patterns can be viewed by looking at the FILL sub menu. Loading a set of fill patterns will overwrite the current set held in memory.

ARCtist fill pattern files are not compatible with Acorn's standard fill pattern files and ARCtist will not be too chuffed if you try to load any in.

Saving Fill Patterns

The set of six fill patterns currently in memory can be saved by clicking Select on the SAVE option located at the bottom of the disc windows FILL SHAPES column. Upon doing so a text cursor will appear in the box below the word SAVE, you are free to type in any filename here. Press RETURN to finish off, ARCtist will then save the patterns in memory to a file of the name just entered.

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